## **JOURNAL**

OF THE

## WASHINGTON ACADEMY OF SCIENCES

Vol. 43 March 1953 No. 3

PALEONTOLOGY.—Jedria, a new subgenus of Naticopsis<sup>1</sup>. Ellis L. Yochelson, U. S. Geological Survey. (Communicated by G. Arthur Cooper.)

While I was working with Dr. J. Brookes Knight and others on the Paleozoic Gastropoda section of the *Treatise on invertebrate paleontology*, it became evident that clarification of the generic conception of *Naticopsis*, together with the proposal of one new subgenus, would be desirable before publication of the treatise. The following discussion is intended to provide the needed clarification:

Naticopsis (Jedria) Yochelson, n. subg.

Genotype: Naticopsis meeki Knight, 1933 (p. 373).

Neritiform shells with subsutural shoulders at ephebic stage. Neanic stages moderately high spired, having evenly rounded, unornamented whorls; mature whorl profile showing a subsutural shoulder followed by a very gently concave slope to a ventricose swelling at the periphery; shoulders of some species ornamented with strong transverse lirae.

In 1933, Knight (p. 363) informally proposed the group of Naticopsis ventrica (Norwood and Pratten), which included that species, the genotype species of Jedria, and Naticopsis scintilla Girty. Among European species, the subgenus appears to include Naticopsis placida (Koninck) and N. plicistria (Phillips) from the Lower Carboniferous, and N. subcostata (Archiac and Verneuil) from the Middle Devonian. One specimen, figured by Kittl as Naticopsis (Hologyra) declivis (1894, pl. 4, fig. 14), from the Triassic of Austria, is doubtfully referred to this subgenus.

The genus *Naticopsis* as recognized in the Paleozoic includes those gastropods with anomphalous shells that have straight, obliquely backward outer lips. A parietal inductura more or less extended in the plane of the aperture is always present. Ontogenetic changes in species are so

<sup>1</sup> Publication authorized by the Director, U. S. Geological Survey.

extreme that juveniles cannot be identified with adults except on the basis of growth series. The genus considered broadly includes species of various shapes. Although these intergrade they appear to group themselves around several major types which here are considered subgenera. At least four of these are recognized.

Naticopsis (Jedria) as proposed above contains those relatively high spired shells that develop a subsutural whorl shoulder at maturity. Naticopsis (Planospirina) Kittl (1899, p. 48) includes relatively low spired shells that have smoothly rounded whorls, but with the final whorl turning obliquely downward. Naticopsis (Naticopsis) McCoy (1844, p. 33) is restricted to those species of Naticopsis that have moderately low spired shells with a mammary apex above a smoothly rounded profile. Naticopsis (Marmolatella) Kittl (1894, p. 142) includes low spired shells having the upper whorl surface flat and extending outward. The subgenera Planospirina and Marmolatella both have Triassic genotypes and have not been used commonly in the literature on Paleozoic Neritacea, Fedaiella Kittl (1894, p. 139), another name based on a Triassic genotype, seems to be a synonym of Naticopsis s.s.

## REFERENCES

Kittl, E. Die triadischen Gastropoden der Marmolata und verwandter Fundstellen in den weissen Riffkalken Südtirols. Jahrb. K.K. geol. Reichenstalt **34**: 99-182, pls. 1-6. 1894.

— Die Gastropoden der Esinokalke nebst einer Revision der Gastropoden der Marmolatakalke. Ann. K.K. naturh. Hofmuseums 14: 1-237,

pls. 4-6. 1899.

Knight, J. B. The gastropods of the St. Louis, Missouri, Pennsylvanian outlier: VI. The Neritidae. Journ. Pal. 7: (4): 359-392, pls. 40-46. 1933.

McCoy, F. A synopsis of the characters of the Carboniferous limestone fossils of Ireland, pp. 5-

207, pls. 1-29. Dublin, 1844.